

DIGITAL PHASE MIXERS WITH ENHANCED SPEED

Abstract of the Disclosure

[0041] Digital phase mixers with enhanced speed are provided. A phase mixer generates a signal having a phase between the phases of two input signals based on select signals. The propagation delay of the output signal is reduced by using a first voltage source to drive the input signals and the output signal and a second voltage source, having a higher voltage than the first voltage source, to drive the select signals. The higher voltage source reduces the impedance of each transistor driven by the select signals, thus reducing the propagation delay at the output of the phase mixer. For a non-differential digital phase mixer, the propagation delay is reduced in the rising edges of the output signal. For a differential digital phase mixer, the propagation delay is reduced in the rising and falling edges of the output signal.